

16. (Amended) A method of treating a patient with Parkinson's disease or a Parkinson's-type disease comprising administering to or transplanting into said patient a therapeutically effective amount of cloned fetal dopamine neuronal cells obtained by a method comprising:

- (i) inserting a differentiated donor cell or cell nucleus from an ungulate embryo, fetus or adult into an enucleated ungulate oocyte under conditions suitable for the formation of a nuclear transfer (NT) unit;
- (ii) activating the nuclear transfer unit;
- (iii) culturing said activated nuclear transfer unit past the embryonic stage until blastocysts are formed;
- (iv) transferring blastocysts into a recipient female ungulate to allow development of a fetus; and
- (v) isolating differentiated fetal dopamine neuronal cells from said fetus, wherein said fetal dopamine cell line has a genotype identical to that of a prior-existing differentiated embryo, fetus or adult ungulate that was not created by nuclear transfer techniques.
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Cont*

18. (Amended) A cloned dopamine cell line derived from a cell of a cloned bovine having a genotype identical to that of a prior-existing fetal or adult bovine that was not the product of nuclear transfer techniques.

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19. (Amended) The cell line of Claim 18, wherein said cloned bovine has a genotype identical to that of a prior-existing fetal bovine that was not the product of nuclear transfer techniques.

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25. (Amended) The differentiated cell line of Claim 22, wherein said cell line is a line of dopamine neuronal cells.

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33. (Amended) A genetically modified fetal dopamine neuronal cell line obtained by a method comprising:

- (i) inserting a differentiated donor cell or cell nucleus from an ungulate embryo, fetus or adult into an enucleated ungulate oocyte under conditions suitable for

the formation of a nuclear transfer (NT) unit; wherein said donor cell or cell nucleus is genetically modified;

- (ii) activating the nuclear transfer unit;
- (iii) culturing said activated nuclear transfer unit past the embryonic stage until blastocysts are formed;
- (iv) transferring blastocysts into a recipient female ungulate to allow development of a fetus; and
- (v) isolating genetically modified differentiated fetal dopamine neuronal cells from said fetus,
wherein said fetal dopamine cell line is derived from genetically modified differentiated fetal dopamine neuronal cells having proliferative life-span of freshly isolated fetal neuronal cells.

47. (Amended) A method of using an ungulate fetal dopamine neuronal cell line as a continuous and genetically identical source for transplantation purposes, comprising administering cells of said cell line to a patient with Parkinson's disease or a Parkinson's-type disease,

wherein said cell line is obtained by a method comprising:

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- (i) inserting a differentiated donor cell or cell nucleus from an ungulate embryo, fetus or adult into an enucleated ungulate oocyte under conditions suitable for the formation of a nuclear transfer (NT) unit;
 - (ii) activating the nuclear transfer unit;
 - (iii) culturing said activated nuclear transfer unit past the embryonic stage until blastocysts are formed;
 - (iv) transferring blastocysts into a recipient female ungulate to allow development of a fetus; and
 - (v) isolating differentiated fetal dopamine neuronal cells from said fetus, wherein said fetal dopamine cell line has a genotype identical to that of a prior-existing differentiated ungulate embryo, fetus or adult that was not created by nuclear transfer techniques.

See the attached Appendix for the changes made to effect the above claims